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December 1, 2010

REGARDING: PS Docket No. 06-229
Comment Date: December 3, 2010
Reply Comment Date: January 7, 2011

The following letter is the official response of The Commonwealth of Kentucky regarding PS Docket No. 06-229 and the Public Safety and Homeland Security Bureau's request for comment on the technical and operational feasibility of enabling flexible use of the 700 MHz Public Safety Narrowband Allocation and Guard Band for Broadband Services.

FCC Seeks Comment on 700 MHz Narrowband "Flexibility"

The Commonwealth of Kentucky is not in favor of enabling the flexible use of the 700 MHz Narrowband Allocation nor the use of Guard Band for Broadband Services at this time.

The future use of 700 MHz voice is in its infancy in Kentucky with planning just beginning to replace obsolete stovepipe analog public safety radio systems and discussions to create region wide communications systems to serve both our urban and rural public safety needs. Broadband public safety systems are envisioned for three major metropolitan areas and 15 other fast growing jurisdictions. Although we see the convergence of RF Voice Systems and Broadband, the Commonwealth will still depend on RF based public safety communications for years to come. This narrowband spectrum is the only available growth area for our conventional RF/LMR radio needs. Although no funding has been identified to expand communications into the 700 MHz spectrum, access to this spectrum for voice is critical to our future public safety requirements.

Currently, the 700 MHz voice allocation has been licensed and is being used to expand existing 800 MHz voice system for infrastructure, mobile repeaters and low power applications. Major jurisdictions in Illinois, Indiana, Ohio, Tennessee and Missouri are currently rolling out 700 MHz voice systems immediately adjacent to Kentucky. The use of some voice spectrum for broadband applications is envisioned ONLY if no broadband channels are available. All of the major public safety communications systems currently share infrastructure on the state owned microwave system known as KEWS, the Kentucky Emergency Warning System, and this will be the primary shared infrastructure for any new data/broadband growth.

Our reading of the request for comments indicates that flexibility appears to have already been embraced by the FCC. This approach would be difficult to manage unless all of the current plans are/were modified to include assigned voice and data channels. This approach completely invalidates the original basis for channel planning done and replicated in most all of the states' 700 MHz plans. Flexible use would contribute to possible co-channel interference in adjacent spectrums which would require more sophisticated frequency planning tools to insure that there was no broadband to broadband interference and/or between voice and data channels. The engineering expertise and frequency management systems do not exist at the RPC and/or APCO Frequency Coordination level in Kentucky. We oppose this approach to frequency management and declare that flexible use creates a major unfunded mandate for the RPCs and the various states.

We expect to see extensive 700MHz Voice growth in most of the states surrounding Kentucky. Missouri, Illinois, Indiana, Ohio and Tennessee have all announced the deployment of 700MHz Voice Systems or have announced extensive expansion of their current 800MHz systems using 700MHz. Guard bands would most likely be required and comprehensive frequency coordination would be required to prevent interference. Our initial mitigation strategy for frequency coordination would (might be) be to put 700MHz Voice at the top of the 700MHz channels to allow for use by existing 800MHz systems and to keep data at the lower channels. Any model would have to be agreed upon by the regional planning committees. Additional frequency coordination activities would have to be funded. It is our opinion that flexible use will require a new strategy for interoperability and a reallocation of the interoperability channels to the upper part of the band. Our expectation would be that this voice part of the band be allocated for P25 Digital Operations. The current 700MHz RPC's role would require additional funding for staff, more formal frequency coordination training and the computer equipment to accomplish the planning. This is currently unfunded. The state/commonwealth is the proper jurisdictional level for frequency management and/or allocation through the implementation of solid FCC rulings and fully coordinated plans. The states and/or RPC should be required to coordinate flexible deployments.

Regarding the issue of equipment: 700MHz voice equipment seems to be readily available from the marketplace and we expect to see a Phase II 6.25 KHz standard soon. It is ironic that there are at least two vendors marketing 6.25 digital format (non P25) radios that support both voice and data and another vendor offers an FCC Part 97 version (HAM Radio). Non P25 Digital LMR equipment is available and has been purchased by a number of Kentucky jurisdictions in spite of and contrary to current SAFECOM Guidance. There are now more non-P25 digital radio systems in medium to small sized Kentucky jurisdictions than P25 systems. We recommend that the FCC take a leadership role to resolve the current phase II digital format issue. Many radios are already somewhat software definable, and there exist several multiband radios that are programmable. We suggest that "software definable" is a market driven issue and vendors will build and market the radios when there is sufficient demand.

The FCC question regarding extending the 6.25 standard seems premature considering that public safety agencies in the Commonwealth of Kentucky are facing a more imminent and difficult deadline to accomplish the January 1, 2013 FCC mandate to reach a 12.5 KHz VHF and UHF narrowband

standard. The ongoing goal of reaching the 12.5 kHz standard trumps the goal of a national 6.25 kHz standard. We therefore have no recommendation on a 6.25 standard.

In conclusion, the Commonwealth of Kentucky does not support flexible licensing of the voice portion of the 700MHz Narrowband Channels.

This letter was drafted for the Chair of the Kentucky Wireless Interoperability Executive Committee (KWIEC) by members of the Public Safety Working Group (PSWG) also known as the Kentucky Region 17 Regional Planning Committee. Replies and comments may be directed to:

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A handwritten signature in dark ink, appearing to read "Jim Barnhart", with a stylized flourish at the end.

Jim Barnhart
KWIEC Chairperson
Commonwealth of Kentucky